

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007628**Date Inspected:** 24-Jun-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 1900**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 700**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG and Tower Fabrication**Summary of Items Observed:**

CWI Inspectors: Mr. Liu Yang, Mr. Liu Wei Wei

On this date CALTRANS OSM Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. This QA Inspector observed the following:

Prior to Caltrans QA Inspectors' concurring with issuance of OBG deck plate closed rib green tag releases a review of the ultrasonic inspection database is performed to verify all closed rib tack weld repair locations have been ultrasonically accepted. Today this QA Inspector, Mr. Paul Dawson, performed data entry of ultrasonic inspection information from the field generated Ultrasonic inspection data sheets onto the common drive computer database for the following OBG deck panels: DP-127-002, DP312-001, DP262-001 and DP264-001.

OBG Bay 3

ZPMC issued "Inspection Notification Sheet" #3507 informing QA that ZPMC has completed ultrasonic inspections of OBG floor beam welds FB003-201-105, FB003-082-104, FB003-199-105, FB003-196-104, FB003-194-104, FB003-194-105, FB003-190-104, FB003-190-105, FB004-045-043, FB004-045-044, FB014-046-043 and FB014-046-044. ZPMC ultrasonic Inspectors had previously accepted all of these welds. This QA Inspector performed random ultrasonic inspections of the welds listed above and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. This QA Inspector observed weld

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FB003-201-104 is also listed on this "Inspection Notification Sheet" and ZPMC had marked this weld as being ultrasonically rejected. For additional information on these inspections see the TL6027 Ultrasonic Test Report.

ZPMC issued "Inspection Notification Sheet" #3508 informing QA that ZPMC has completed ultrasonic inspections of OBG cross beam welds CB202B-010-001 and CB202B-010-002. ZPMC ultrasonic Inspectors had previously accepted both of these welds. This QA Inspector performed random ultrasonic inspections of the welds listed above and items observed by this QA Inspector appear to comply with AWS D1.5 UT requirements. For additional information on these inspections see the TL6027 Ultrasonic Test Report.

This QA Inspector observed ZPMC welder Mr. Chen Chuanzong, stencil 044824 is using flux cored welding procedure WPS-B-T-2232-TC-U4b-F to make OBG floor beam weld SSD20-PP101-137. This QA Inspector observed a welding current of approximately 200 amps and 30.0 volts. Items observed on this date appeared to generally comply with applicable contract documents.

OBG Bay 6

This QA Inspector observed ZPMC welder Mr. Zhou Songsong, stencil 068091 is using shielded metal arc process WPS-B-P-3313-TC-P5 to make tower double diaphragm weld NSD1-DPSA4-014B/B-009. This QA Inspector observed a welding current of approximately 275 amps and the base material where the weld is being made appears to have been preheated with an electric heating element to a temperature above 140 degrees Celsius. ZPMC QC and ABF personnel are monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Wei Hengbin, stencil 068924 is using shielded metal arc process WPS-B-P-3313-TC-P5 to make tower double diaphragm weld NSD1-DPSA4-014B/B-009. This QA Inspector observed a welding current of approximately 265amps and the base material where the weld is being made appears to have been preheated with an electric heating element to a temperature above 140 degrees Celsius. ZPMC QC and ABF personnel are monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Niu Duojun, stencil 037932 is using shielded metal arc process WPS-B-P-3313-TC-P5 to make tower double diaphragm weld NSD1-DPSA4-014B/B-008. This QA Inspector observed a welding current of approximately 275 amps and the base material where the weld is being made appears to have been preheated with an electric heating element to a temperature above 140 degrees Celsius. ZPMC QC and ABF personnel are monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

This QA Inspector observed ZPMC welder Mr. Fu Yanjie, stencil 066268 is using shielded metal arc process WPS-B-P-3313-TC-P5 to make tower double diaphragm weld NSD1-DPSA4-014B/B-009. This QA Inspector observed a welding current of approximately 270 amps and the base material where the weld is being made appears to have been preheated with an electric heating element to a temperature above 140 degrees Celsius. ZPMC QC and ABF personnel are monitoring this welding. Items observed on this date appeared to generally comply with applicable contract documents.

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Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang phone: 150-0042-2372 , who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
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Reviewed By:	Carreon,Albert	QA Reviewer
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